Overview of Exam of the Dizzy Patient

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Goals of the Exam

- Quantify functional status
- Identify medical problems
- Quantify vestibular deficit
- Quantify neurological deficit
- Identify psychological problems

Strategy of the exam

- Order for your convenience
  I. Standing
  II. Sitting
  III. Frenzel basic tests
  IV. Special tests
- Save potentially disturbing tests (e.g. vestibular testing) for the end
- Expand exam as needed based on history or previous examination

I. Standing

- Gait and Romberg
- Motor power in lower extremities
- Blood pressure/Pulse standing

Romberg

This is eyes-open regular Romberg (EORR).
It is best to use eyes closed (ECTR)
Normal persons should be able to stand in ECTR for 6 sec.

Head extended ECTR for 6 seconds is in upper 25th percentile

Standing -- Motor power

- Is patient’s unsteadiness due to weakness?
  – Stand on heels and toes
  – Deep knee bend
- Tell patient you are checking for power.
- You also should be checking for consistency – if can’t do Romberg, but can do this, not inconsistency
Standing -- Blood pressure/Pulse

- Measure BP/pulse

II. Sitting exam (without goggles)

- Cranial Nerve exam
- Upper ext. Neurological, DTR, Toe signs
- Vibration at Ankle

II. Essential Cranial Nerves

- Vision
- Oculomotor
- Hearing

II. Vision

- Visual acuity
  - Is patient (nearly) blind?
  - Can patient see with both eyes?
- Does the patient have a VOR?

8th nerve: Dynamic Illegible ‘E’ test (DIE test)

- Distance vision with head still
- Distance vision with head moving
- Normal: 0-2 logmar change.
- Abnormal: 4-7 logmar change


Rapid Dolls Head Impulse Test (HIT)
Ophthalmoscope Test

II. Oculomotor

- Does patient have double vision, nystagmus?
- Can patient track?
  - Range, alignment and Gaze
  - Saccades
  - Pursuit

II. Gaze Testing

- Move finger to the limits of lateral gaze (bury sclera) – if can’t bury, may have oculomotor palsy
- Move finger to limits of vertical gaze
- Do eyes reach end-gaze?
- Is there end-gaze nystagmus?

Gaze nystagmus

- Alexander’s Law

II. Hearing -- 8th nerve

- Screen Hearing
  - Rubbed fingers (high frequencies)
  - Tuning forks (Good but slow)

Motor

- Deep tendon reflexes
- Babinski sign
- Tremor
- Tone
Coordination

- Finger to nose (FTN), fine finger movements
- Rapid alternating movements (RAM)

Sensory Examination

- Vibration sense (ankles)

III. Frenzel Goggles

Optical Frenzel Goggles

- Inexpensive (about $500)
- Portable – take on the road
- A little limited – can’t do vibration, head-forward or cross-cover
- Can get hot, bulbs burn out and break

Frenzel – routine test
Spontaneous Nystagmus Test

- Observe nystagmus in light and dark
  - Acute vestibular disorders have strong horizontal “jerk” nystagmus.
- Many other types of nystagmus

Frenzel -- Routine Vibration

- Method: Apply 60-120 Hz vibration to SCM, first one side, then the other. Shower massagers work well for this and are inexpensive.
- Video Frenzel goggles – optical Frenzels don’t work very well
- Compare nystagmus before and during
Vibration Induced Nystagmus

- Unidirectional horizontal nystagmus strongly suggests contralateral vestibular lesion.

Frenzel -- Routine Positional Testing

- Vertebral artery test (VAT) for cervical vertigo
- Dix-Hallpike testing
  - For BPPV
- Situational testing
  - Lateral canal

IV Frenzel -- Situational Head-shaking test

- Method: 20 cycles of horizontal head rotation
- Frenzel goggles to monitor nystagmus prior to and following head-shaking.
- Positive -- substantial change in nystagmus following head-shaking. Usually beats away from bad ear.

IV Frenzel Situational Tests: Pressure sensitivity

- Valsalva test
  - 10 seconds of exhale against closed glottis (to increase CSF pressure)
    - Sensitive
- Tullio test
  - Brief loud noise
  - Insensitive

IV Frenzel Situational Tests: Hyperventilation

- 30 seconds of brisk HVT
- Exam for change in nystagmus
  - Irritable vestibular nerve
  - Seizure (very rare)
  - Anxiety (dizzy, no nystagmus)

More details


More movies

www.dizziness-and-balance.com